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THE REGENTS OF THE UNIVERSITY OF
CALIFORNIA

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION

THE REGENTS OF THE UNIVERSITY OF
CALIFORNIA, a corporation,

Plaintiff,

v.
CALIFORNIA BERRY CULTIVARS, LLC,
DOUGLAS SHAW, AND KIRK LARSON

Defendants.

Case No. 3:16-cv-02477-VC

**THE REGENTS OF THE
UNIVERSITY OF CALIFORNIA'S
TRIAL BRIEF**

CALIFORNIA BERRY CULTIVARS, LLC

Cross-Complainant,

v.
THE REGENTS OF THE UNIVERSITY OF
CALIFORNIA, a corporation,

Crossclaim Defendants.

Final Pretrial
Conference Date: May 8, 2017
Time: 2:30 p.m.
Ctmm: 4 - 17th floor
Judge: Hon. Vince Chhabria

1 **I. FACTUAL BACKGROUND**

2 **A. The University's Strawberry Breeding Program**

3 Most of the strawberries sold in the U.S. were developed at UC's Strawberry Breeding
4 Program, which is now centered at UC's Davis campus. Although UC derives royalties from the
5 Program, its core aim is not to make money. The goal is to advance better strawberry varieties
6 for CA growers, with benefits felt worldwide. The Program began in the 1930s, and was
7 substantially expanded from the 1950s to the 1980s by two seminal scientist-breeders: Dr. Royce
8 Bringhurst and Mr. Victor Voth. (Ex. 1 at 79:11-17.) It was then that UC varieties came to
9 dominate the California and global strawberry industry. (*Id.*) In the late 1980s, Dr. Bringhurst
10 and Mr. Voth indicated they would soon be retiring, and UC began searching for a replacement.
11 (*Id.* at 16:8-17:1.)

12 Dr. Shaw was hired in 1986, and assumed direction of the Program in 1990; Dr. Larson
13 was hired in 1991. (*Id.* at 17:2-4; ECF No. 145-6 at 15:19-23.) As with previous faculty
14 breeders, UC paid them salaries and a large portion (together, ~30%) of royalties generated from
15 any new strawberry varieties they invented that were patented and released. (Ex. 1 at 22:20-24;
16 Complaint Exs. 1, 2.) To develop new varieties, they used strawberry breeding stock first
17 developed by previous generations of UC strawberry breeders, such as Dr. Bringhurst and Mr.
18 Voth. (Ex. 1 at 17:17-18:19.) Drs. Shaw and Larson could not have developed the varieties they
19 developed without this material. Drs. Shaw and Larson made millions from Program royalties,
20 but Dr. Shaw, in particular, did not feel he was wealthy and was tired of reporting to the College
21 Dean on his activities. (*Id.* at 22:20-24, 26:23-28:19, 36:20-24.) He wanted more.

22 **B. Attempt to Shut Down Program**

23 Drs. Shaw and Larson had been granted the privilege and immense responsibility of
24 developing and protecting the Program, a crown jewel of UC's Davis campus. Yet they tried
25 their best to end the Program at UC, so they could take it private and make a for-profit business
26 out of it for their own benefit. In 2011, Drs. Shaw and Larson started spreading the word that the
27 Program would end when they retired. (ECF No. 160-16 at CBC00002073, 2079.) They violated
28 their duties to UC by telling its biggest customers and partners in the industry that the Program

1 was failing and that these companies needed join their private venture (that became CBC), or be
 2 shut out of new varieties. They tried to force UC to license to them on their terms. They revoked
 3 a Program funding mechanism in 2012 with an aim to cripple the Program (ECF No. 157-19),
 4 kept the data on their breeding work in 2012 a secret (Ex. 1 at 193:6-194:22), destroyed all their
 5 breeding work at UC from 2013 (*id.* at 48:5-21), and did no breeding work for UC in 2014 (*id.* at
 6 45:3-7). This created a substantial gap in the Program’s breeding pipeline. (*Id.* at 49:16-50:1.)

7 At the same time, Drs. Shaw and Larson encouraged two faculty friends in their
 8 department to support a private spinoff and to give that spinoff the most valuable breeding stock
 9 in the Program — the 180 varieties referred to as the CSG. As Dr. Shaw knew, UC “has never
 10 had a policy of releasing its germplasm for general breeding purposes.” (*Id.* at 108:14-110:21.)
 11 Nevertheless, together with these two colleagues, Drs. Shaw and Larson prepared a
 12 recommendation to the Dean of the College of Agriculture, who had final say on the matter, to
 13 release the CSG to “Strawberry, Inc.” They had earlier disclosed this same germplasm as a
 14 patentable invention, and the recommendation rejected the use of plant patents to protect the
 15 germplasm, against the advice of the University’s technology transfer office. (Ex. 2 at 217:19-
 16 219:5, 219:22-220:16.) Instead, the recommendation proposed releasing all 180 varieties at once,
 17 making the unpatented, tangible property of the plants available to those outside UC, and
 18 “protecting” this property solely through Tangible Research Product, or “TRP,” contracts — all
 19 proposals that were without precedent for strawberry variety releases. (*Id.* at 180:22-181:15,
 20 227:14-25.)

21 C. The University Rejects the TRP Proposal, and Files a Patent 22 Application on the CSG

23 The Dean evaluated Dr. Shaw and Larson’s proposal thoroughly and, in March 2014,
 24 declined it. (ECF No. 145-47.) TRP contracts, unlike patents, provide little protection against
 25 third party use of materials, except as to those subject to the contracts. (Ex. 2 at 228:19-229:7.)
 26 The Dean wanted the Program to be maintained for the public benefit, and in her view potential
 27 “loss of control of TRP [would] not benefit the public interest including the California strawberry
 28 industry’s interest.” (ECF No. 145-47.) Having consulted with UC’s technology transfer office,

1 she explained “[p]lant patents provide the best possible protection of UC plant intellectual
2 property and we are considering such options.” (*Id.*; Ex. 2 at 219:6-21.) At the time, the Dean’s
3 decision still contemplated that licenses of the Core Strawberry Germplasm to private companies
4 might be possible. But she made clear that UC’s intention was “to continue the public breeding
5 program.” (ECF No. 145-47.)

6 In early 2014, Drs. Shaw and Larson revealed that they would be retiring by the end of the
7 year. After receiving this information, UC quickly sought to replace them with a new breeder,
8 conducting a nation-wide search that ultimately resulted in the hiring of a highly regarded
9 geneticist and plant breeder, Dr. Steven Knapp. (ECF No. 144-12; Ex. 3.)

10 In mid-2014, UC decided to proceed with patenting the CSG, which had been disclosed as
11 an invention six months earlier. There were two main reasons for this decision: 1) to protect
12 UC’s rights in this germplasm in the event UC decided to license any of it for breeding purposes,
13 and 2) to provide record notice to third parties of UC’s equitable interest in this germplasm. (Ex.
14 2 at 180:22-183:14; ECF No. 158-20.) UC appropriately deemed the varieties within the CSG
15 patentable, as each is a “distinct and new variety of plant.” 35 U.S.C. § 161. For efficiency, UC
16 filed a single, initial application on all such varieties, although it was aware that continuation
17 patent applications would be needed to pursue each of the included varieties to patent issuance, as
18 has already happened for the Cabrillo variety. (Ex. 2 at 165:20-166:11.) UC requested
19 assignments from Drs. Shaw and Larson, which they were contractually obligated to provide, but
20 they refused in breach of their employment agreements. (ECF No. 240 at 2.)

21 Drs. Shaw and Larson soon made clear that they did not intend for their private breeding
22 company to cooperate with UC; rather, they intended to compete directly with UC. (Ex. 1 at
23 57:4-14.) This affected license negotiations, and UC ultimately suspended any consideration of
24 breeding licenses. UC’s focus then turned to proceeding with the patenting process, with the
25 information it had available. Drs. Shaw and Larson provided further information on one variety
26 before their retirement: Cabrillo. (Ex. 2 at 176:15-21, 38:13-16.) That variety has since been
27 patented in a follow-on application from the group application, and released. (*Id.*; Ex. 4.) UC
28 requested that Dr. Shaw provide all data relating to the Program, and to the CSG in particular, so

1 that additional varieties could be identified for commercial release and individual follow-on
2 applications. (Ex. 5.) But he refused to provide UC with this information.

3 Dr. Knapp was selected as the new director shortly before Drs. Shaw and Larson retired in
4 November 2014, and started working in February 2015. When they retired, they took all Program
5 documentation with them, including all pedigree and performance data. (Ex. 1 at 192:25-194:22.)
6 This left Dr. Knapp and those responsible for patenting without key information on the Program
7 germplasm. (Ex. 5.) In 2015, Dr. Knapp directly asked Dr. Shaw for the information (*id.*), but he
8 again refused to provide it. Dr. Knapp's team has had to spend substantial money and time to
9 recreate that data, and many aspects of the Program have been delayed due to the missing data.
10 Dr. Knapp has been working to develop the TCs, and has maintained and advanced the CSG.
11 Aided by DNA genotyping analysis, Dr. Knapp has now generated sufficient information to
12 identify several varieties from the CSG for further patent prosecution and potential commercial
13 release in the near future. (Ex. 7 at 153:18-154:10.)

14 **D. CBC's Use of University Varieties Without Authorization**

15 Even before the Dean said no to their private spinoff, Drs. Shaw and Larson had already
16 begun implementing a Plan B. (Ex. 1 at 58:15-59:14.) Had they wanted to start a breeding
17 business with varieties not owned by UC, that would have been fine, but that is not what they did.
18 Instead, Drs. Shaw and Larson orchestrated a secret business plan for their new company, CBC,
19 with UC's key licensee in Spain, EuroSemillas.

20 While still employed by UC, Drs. Shaw and Larson began arranging for UC varieties that
21 were not yet publicly available to be sent to Spain under UC "Test Agreements" with
22 EuroSemillas. (ECF No. 158-1; ECF No. 160-45.) Then, Dr. Shaw's contact at EuroSemillas in
23 Spain, Javier Cano, obtained possession of these varieties from EuroSemillas and cross bred them
24 to provide CBC with a set of germplasm to start a breeding program that ostensibly was CBC's
25 own work, but was in fact derived from UC germplasm. Dr. Shaw directed Dr. Larson to go to
26 Spain to supervise the crosses. (ECF No. 196-19.) Mr. Cano then had the seeds resulting from
27 the crossbreeding harvested, and sent the seeds to the U.S. for CBC's use. (ECF No. 196-18.) To
28 obscure that his work was on CBC's behalf, Mr. Cano carried it out using sham contracts under

the name of a shell company, International Semillas, which has no independent assets, and renamed the plants involved to disguise the use of UC germplasm as parent plants. (Ex. 8 at 77:11-78:20, 81:8-10; ECF No. 196-20 at CBC00000914.) The plan was for CBC to take UC's market share for itself, using UC's own germplasm.

E. CBC and Its Representatives Knew Their Use of University Varieties Was Wrong

CBC and Drs. Shaw and Larson knew their use of UC strawberry varieties in CBC's breeding program was not authorized by UC. They conducted breeding in Spain because they knew that the same conduct would be unlawful in the U.S., and that UC would learn of it. (Ex. 9 at 91:24-92:11.) They went to great lengths to hide their activity from UC. When UC asked them whether UC's strawberry varieties had been used in CBC's breeding program, they said there was no breeding with UC varieties. (ECF No. 62-5.) They later admitted that CBC did use UC patented varieties for breeding, but insisted there was no breeding with unreleased UC varieties, such as the CSG. UC's expert and their own documents now show that CBC used unreleased UC varieties extensively.

II. THE UNIVERSITY'S CLAIMS FOR RELIEF

A. Overview of the University's Primary Claims

1. Conversion and Breach of Contract

UC alleges that CBC and Drs. Shaw and Larson are liable for conversion because they used or possessed UC varieties without authorization. These varieties include the CSG and the TCs as well as certain patented varieties released in the U.S. but not yet in Spain. The Court has found that 1) UC owns the tangible property rights to all these varieties in its possession, 2) UC should be assigned any remaining rights to the CSG, including the rights to any intellectual property (e.g., the rights to the pending plant patents applications), and 3) CBC is not a bona fide purchaser of any of these rights. Except for certain varieties that have been patented and released, none of the CSG or TCs is available to the public. As UC has the sole right to possess these varieties, and has not authorized any use of them by third parties except under Test Agreements that confirm UC's ownership and preclude any cross breeding or transfer of them to others — any

1 use of them by CBC and Drs. Shaw and Larson, or others at their direction and for their benefit,
2 constitutes conversion.

3 UC's expert, Dr. Stephen Dellaporta, is a geneticist and plant breeder at Yale University.
4 Using DNA genotyping information, he performed a genetic analysis that conclusively shows
5 which UC varieties were used to breed which progeny in CBC's possession. He performed this
6 analysis blind to avoid any biases. His analysis shows that CBC used 22 unreleased CSG
7 varieties and 2 unreleased TCs in crossbreeding in 2014, per a plan Drs. Shaw and Larson
8 directed while still at UC. In what cannot be a coincidence, a communication from Dr. Shaw to
9 Mr. Cano, also while Dr. Shaw was employed by UC, lists the same varieties Dr. Dellaporta
10 identified in a blind setting and proposes using them in crossbreeding in 2014 for CBC's private
11 breeding program.

12 In addition, Dr. Shaw took critical data from UC's Program and refuses to provide even a
13 copy to UC. The Court has already found breach of contract for Dr. Shaw's refusal to provide
14 further information on the CSG despite his obligation to do so under his Patent Agreement. Drs.
15 Shaw and Larson also withheld critical data on the remaining germplasm in the Program,
16 including the TCs.

17 Last, CBC admits it was in possession of property taken from UC when Drs. Shaw and
18 Larson retired, such as an all-terrain vehicle, a bed shaper, piping and greenhouse materials, and
19 various other physical property purchased with University funds.

20 **2. Patent Infringement**

21 The Court has already found that importation of seeds from UC's patented varieties would
22 be infringement because seeds are a part of the patented plant. CBC and Drs. Shaw and Larson
23 admit that they directed the use of certain UC patented varieties for breeding in Spain, but claim
24 not to know which varieties were used to generate the seeds that were imported. They claim only
25 International Semillas would know. Using the DNA evidence and spreadsheets produced by
26 CBC, however, UC can show from which UC patented varieties the seeds came in the majority of
27 cases, thus showing which patents were infringed. In the remaining cases where at least one UC
28 patented variety was used in breeding, and where CBC's refusal to provide complete breeding

pedigrees prevents UC from identifying the “female” parent, the jury should be permitted to infer that the UC patented variety was the variety from which the seeds were harvested. Additionally, CBC and Drs. Shaw and Larson have been found to infringe by “benchmarking” in the U.S. with UC patented varieties. They benchmarked so they could make sure the strawberry varieties they were breeding — using UC varieties as parents — had traits at least as valuable to growers as the released UC varieties.

3. Interference and Breach of Duty Claims

UC alleges that CBC and Drs. Shaw and Larson interfered with UC’s contracts and business relationships, and that Drs. Shaw and Larson breached their duty of loyalty and fiduciary duty to UC. Drs. Shaw and Larson started and obtained an ownership interest in CBC, a company in direct competition with UC, while still employed with UC. They supplied UC-owned germplasm, materials, and resources to EuroSemillas, which were then provided to CBC, all while they were still employed by UC. They directed breeding in Spain by a EuroSemillas affiliate, International Semillas, using UC germplasm, so that the resulting seeds containing UC genetic traits could be sent to CBC in the U.S., while they were still employed by UC. CBC and Drs. Shaw and Larson also interfered with contracts and relationships between UC and its licensees, including its nursery licensees (in California) and EuroSemillas (its most significant licensee outside the U.S. by royalties generated). This, too, occurred while Drs. Shaw and Larson were still employed by UC and thereafter. Together, CBC members and their affiliates comprise more than 80% of the market for UC varieties. For none of these actions did Drs. Shaw and Larson have UC’s best interest in mind; rather, they did these things for their own personal gain.

B. CBC’s Claims

CBC’s sole remaining claim is for breach of the implied covenant of good faith and fair dealing with regard to UC’s decision to file patent applications on and to seek assignment of the CSG. UC filed this application in good faith after Drs. Shaw and Larson disclosed this large set of varieties as an invention — an unprecedented action by the breeders — and owns the tangible rights in this germplasm in any event. Any damages flowing from this claim would be nominal at best.

1 Dated: May 1, 2017

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